

*Results of Micrometer Measures of Double Stars made with the 28-inch Refractor at the Royal Observatory, Greenwich, in the year 1906.*

(Communicated by the Astronomer Royal.)

The measures were made with a bifilar position micrometer on the 28-inch refractor, focal length 28 feet. The power generally employed was 670. When bright stars were observed a blue glass shade was usually employed to diminish the light and irradiation. The observations were made in variously coloured fields or in a dark field with illuminated wires. The initials in the last column are those of the observers, viz. :—

L.	Mr. Lewis	B.	Mr. Bryant
W. B.	Mr. Bowyer	H. F.	Mr. Furner

The main portion of the measures are of pairs discovered by Hough, which usually consist of a bright star with a faint companion. The remaining measures are of stars selected from the catalogues of W. Struve, Otto Struve, Burnham, Hussey, and Aitken.

In general the present list of measures is confined to stars of which the separation is under 4" or which show orbital motion.

The following stars, which are not included in the list of measures, have also been observed.

*Hough Stars.*

20	116	323	387	446 AC	501	573
26	117	327	394	448	519	576 AC
28	131	337 AB	400	452 AB	523	586
29	204	337 AC	406 AB	452 AC	534	597
30	236	343	406 AC	460	539	603
31	240	347	412	465	543	604
32	259	348	416	473	548	606
38	269	349	423	475 AC	550	611
39	281	362 AB	425	476	551	613
45	297	362 AC	426	477	552	615
64	302	365	433	478	553	616
91	305 AB	372	434	486	557	617
115	305 AC	377	440	487	570	

*Struve Stars.*

877	1934	2185 AB	2476 AC	2690 AB	2818 R
1297	1965	2185 AC	2585 AC	2690 AD	2824

*Micrometric Observations of Double Stars at the  
Royal Observatory, Greenwich.*

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	° '	°	"				
$\beta$ 1093	0 16	79 31	73°1	0'29	1	7'3 8'2	'882	B.
$\beta$ 779	0 23	66 55	257°1	0'78	1	8'5 9'0	'882	B.
Ho 212	0 31	94 5	244°4	0'24	1	6'0 6'0	'882	B.
Hu 411	0 33	67 50	279°3	0'67	3	8'5 8'5	'884	W. B.
Ho 306	0 43	64 56	165°3	1'21	3	8'5 8'8	'884	W. B.
$\Sigma$ 73	0 50	66 52	28°1	0'97	3	6'2 6'8	'860	B.
...	...	...	27°9	0'99	3	...	'879	W. B.
Ho 307	0 52	58 17	88°8	3'01	1	9'5 9'7	'928	W. B.
$\Sigma$ 113	1 15	91 0	357°5	1'56	1	6'2 7'2	'882	B.
Ho 310	1 21	61 55	359°0	1'52	2	9'0 9'0	'882	W. B.
Ho 9	1 24	68 45	97°2	3'12	2	9'0 11'0	'909	W. B.
$\Sigma$ 138	1 31	82 50	38°7	1'62	2	7'3 7'3	'904	B.
$\Sigma$ 183 AB	1 50	61 39	359°1	0'36	2	7'5 8'2	'904	B.
AC	...	...	162°9	5'19	2	7'5 8'7	'904	B.
$\Sigma$ 186	1 51	88 37	36°8	0'68	1	7'2 7'2	'882	B.
Ho 12	1 57	55 46	97°2	3'75	1	8'0 10'7	'068	H. F.
Ho 315	2 34	91 58	359°7	1'38	2	8'0 8'2	'454	B.
$\Sigma$ 305	2 42	71 1	315°0	3'30	2	7'3 8'2	'901	W. B.
...	...	...	314°4	2'88	1	...	'925	B.
Ho 317	2 52	73 7	304°5	3'36	2	8'1 11'0	'456	W. B.
Ho 318	2 54	73 19	27°6	3'22	2	9'1 9'1	'454	B.
$\Sigma$ 367	3 9	89 37	209°0	0'49	1	8'0 8'0	'882	B.
Ho 320	3 16	89 9	169°2	2'08	1	8'0 10'5	'025	B.
Aitken 979	3 20	59 35	274°0	1'45	1	9'2 10'0	'890	W. B.
Ho 14	3 28	62 1	201°0	1'88	1	8'2 8'7	'019	L.
Ho 324	3 44	75 18	162°8	0'68	1	8'1 8'3	'019	L.
$\beta$ 1232	4 4	61 3	4°5	0'48	1	8'4 9'3	'019	L.
Ho 328	4 12	70 33	245°1	0'47	1	7'0 7'0	'068	H. F.
Ho 15	4 19	60 5	323°4	0'79	2	8'0 8'0	'041	W. B.
Hu 304	4 19	80 44	38°9	0'31	1	5'9 5'9	'025	B.
Ho 332	4 38	69 31	127°1	1'32	1	9'0 9'0	'025	B.
Ho 333	4 38	69 55	160°8	2'55	1	9'2 9'3	'025	B.
Ho 17	4 54	59 7	56°2	4'11	2	8'0 10'0	'065	W. B.
Ho 222	4 54	58 33	223°1	2'11	1	7'7 10'5	'022	W. B.
Ho 224 AB	4 59	61 24	297°2	1'46	2	9'0 10'7	'137	H. F.
Ho 334	5 12	67 16	183°7	2'12	2	8'1 10'2	'055	W. B.
Ho 225	5 17	77 25	115°8	0'51	2	8'0 8'1	'100	W. B.

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
h m	° '	° '	° '	"				
Ho 226 AB	5 21	62 28	239°0	0°62	4	7°0 7°0	°074	W. B.
$\frac{AB}{2}$ & C	...	...	273°6	23°57	3	7°0 10°5	°087	W. B.
Ho 335	5 27	63 17	114°1	3°19	2	9°0 10°5	°086	W. B.
Σ 749	5 31	63 6	169°3	0°81	1	7°0 7°1	°255	B.
Hu 825	5 34	54 3	339°5	0°30	1	7°8 8°0	°255	B.
Ho 510	5 39	56 19	241°2	1°31	1	9°0 9°2	°255	B.
Hu 38	5 40	67 8	138°0	0°77	1	8°6 8°8	°255	B.
Hu 39	5 42	68 10	65°5	0°43	1	8°4 8°5	°255	B.
Hu 40	5 46	69 53	8°0	3°29	1	8°5 9°5	°255	B.
Ho 228	6 1	77 30	270°2	2°38	2	8°0 11°0	°064	W. B.
Ho 22	6 8	79 43	198°1	0°72	2	8°0 8°0	°140	B.
Ho 230	6 14	76 11	60°0	1°89	4	8°3 10°5	°085	W. B.
Ho 232	6 17	75 17	356°5	2°58	1	9°5 11°0	°068	H. F.
Ho 233	6 18	73 26	38°3	2°24	2	8°2 11°0	°041	W. B.
Hu 702	6 19	55 33	318°3	0°93	3	8°5 9°0	°273	W. B.
OΣ 141	6 25	72 2	139°6	2°12	2	7°9 9°6	°130	W. B.
Σ 945	6 34	48 54	269°9	0°75	1	7°1 8°0	°255	B.
Σ 3117	6 36	80 10	94°2	0°66	1	8°9 9°4	°019	L.
Σ 3118	6 37	80 5	174°3	2°97	1	9°0 9°5	°019	L.
Ho 238	6 41	71 41	182°4	0°49	2	8°3 8°3	°155	W. B.
OΣ 156	6 42	71 42	298°1	0°56	3	6°5 7°0	°150	W. B.
Ho 239	6 45	75 12	139°9	0°59	1	8°3 8°3	°145	W. B.
Ho 27	6 50	69 47	125°7	3°27	2	9°0 9°0	°041	W. B.
Ho 342	6 58	76 46	84°9	1°02	3	8°0 8°8	°141	W. B.
Ho 518	7 5	59 29	143°6	2°97	2	8°0 10°0	°141	W. B.
Σ 1037 AB	7 7	62 37	297°9	0°60	1	7°1 7°1	°192	L.
AC	...	...	111°5	17°24	1	7°1 12°0	°192	L.
Ho 33	7 15	67 40	324°5	2°69	2	9°0 12°0	°099	W. B.
Ho 243	7 17	60 34	166°4	2°29	1	9°3 9°5	°164	W. B.
Ho 345 AB	7 17	67 45	284°0	1°16	1	9°0 10°0	°236	H. F.
Ho 346	7 21	71 40	60°2	13°18	2	7°0 11°8	°221	H. F.
Ho 34	7 26	68 44	10°5	2°45	2	9°5 9°5	°078	W. B.
Hu 707	7 29	68 11	27°2	2°23	2	8°6 12°0	°221	H. F.
Hu 457	7 35	66 33	143°6	2°30	1	8°5 12°3	°192	L.
Ho 247	7 41	68 39	106°9	0°54	1	7°5 8°0	°140	W. B.
Ho 36	7 42	64 19	123°1	0°65	2	8°5 8°5	°267	W. B.
Ho 250	7 52	68 47	168°3	0°52	2	7°0 9°0	248	H. F.
β 581 $\frac{AB}{2}$ & C	7 59	77 28	191°9	4°46	2	8°0 11°0	°217	B.

42 *Micrometer Measures of Double Stars made at* LXVIII. I,

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	° '	°	"				
Ho 351	8 2	68 51	228°9	2'32	1	7'0 11'7	'236	H. F.
Σ 1187	8 4	57 31	43°3	2'22	2	7'1 8'0	'261	W. B.
Σ 1196 AB	8 7	72 4	348°3	1'03	1	5'0 5'7	'101	B.
	...	...	347°0	1'04	2	...	'233	H. F.
	...	...	346°1	1'09	2	...	'251	W. B.
AC	...	...	111°2	5'19	1	5'0 5'5	'101	B.
	...	...	108°9	5'15	2	...	'233	H. F.
	...	...	109°3	5'36	2	...	'251	W. B.
BC	...	...	120°0	6'18	1	5'7 5'5	'101	B.
	...	...	122°6	6'22	2	...	'251	W. B.
Ho 524	8 11	71 2	337°1	4'10	2	8'0 11'0	'203	W. B.
Hu 626	8 14	57 23	155°3	2'88	1	8'0 12'0	'315	W. B.
Hu 855	8 17	76 33	225°0	1'42	1	9'2 10'8	'268	L.
Ho 525	8 18	69 42	334°4	0'49	1	8'5 8'5	'268	L.
Hu 714	8 21	57 30	344°3	0'53	1	8'6 9'2	'268	L.
Ait. 551	8 24	92 13	56°5	0'24	1	7'4 7'5	'312	B.
Hu 627	8 25	55 10	268°1	0'75	1	9'0 10'0	'315	W. B.
Hu 717	8 27	57 14	52°7	0'45	2	8'8 9'0	'307	L.
Hu 858	8 33	77 43	171°6	0'91	2	9'1 9'8	'248	H. F.
Ho 354	8 37	63 37	177°6	0'97	2	8'2 8'2	'307	L.
Ho 355	8 38	92 22	185°4	0'36	1	8'0 8'0	'312	B.
Σ 1273 AC	8 42	83 15	236°0	2'85	1	3'3 7'8	'270	W. B.
Ho 360	8 55	67 11	149°9	3'60	4	8'0 12'0	'243	W. B.
Ho 41	8 59	92 2	71°4	4'08	2	9'0 10'0	'217	B.
Ho 42	9 9	56 4	6°8	1'41	3	9'5 9'5	'228	W. B.
Σ 3121	9 13	61 2	216°8	0'42	2	7'5 7'8	'251	W. B.
	...	...	211°7	0'57	2	...	'284	B.
Ho 43	9 14	68 48	298°7	0'39	1	8'0 8'5	'315	W. B.
	...	...	288°9	0'27	1	...	'345	L.
Ho 364	9 14	66 42	334°8	3'97	2	8'2 11'2	'171	W. B.
Σ 1348	9 20	83 15	318°5	1'76	2	7'5 7'6	'274	W. B.
Σ 1355	9 22	83 21	335°1	2'45	2	7'2 7'2	'284	W. B.
Ho 366	9 23	58 8	14°8	0'69	2	8'5 8'7	'326	L.
Σ 1356	9 23	80 34	114°4	0'76	2	6'2 7'0	'284	B.
Ho 367	9 28	61 14	257°9	32'18	2	6'2 11'0	'214	W. B.
Hu 1128	9 30	53 47	36°8	5'40	1	5'5 14'0	'345	L.
Ho 253	9 43	79 30	293°6	1'13	2	7'0 12'0	'226	W. B.
Hu 631	9 59	56 55	271°0	0'73	1	7'0 8'6	'312	B.
	...	...	272°2	0'74	2	...	'326	L.

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	° '	"	"				
Hu 634	10 11	56 24	161°3	1°69	2	8·4 9·8	'233	H. F.
Hu 875	10 13	52 2	62°3	0°96	1	7·0 9·8	'307	L.
	...	...	71°6	0°93	1	...	'315	W. B.
Hu 879	10 23	52 50	234°6	0°42	1	4·0 6·5	'312	B.
Σ 1439	10 25	68 44	112°8	1°86	3	8·0 8·5	'275	H. F.
Hu 880	10 26	52 23	124°9	0°80	1	9·0 9·7	'312	B.
Hu 636	10 27	56 42	204°1	1°86	1	9·0 10·5	'260	H. F.
Ho 374	10 45	66 41	271°0	3°71	3	8·4 12·0	'220	W. B.
Ho 376	10 48	66 19	218°4	3°17	2	8·8 10·0	'195	W. B.
Ho 48	10 59	66 22	8°7	1°93	3	8·0 11·2	'288	W. B.
Σ 1536	11 19	78 58	51°9	2°39	1	3·9 7·1	'255	B.
Ho 51	11 27	81 38	176°2	2°47	1	7·0 12·0	'318	W. B.
Hu 888	11 38	68 25	142°2	0°64	2	8·4 8·9	'266	W. B.
Lewis	11 54	59 2	9°2	0°84	1	7·0 11·5	'345	L.
Hu 890	11 57	78 10	64°2	1°38	3	9·0 10·0	'261	W. B.
Ho 535	11 58	67 44	139°6	2°18	3	8·0 12·0	'267	W. B.
Ho 53	12 19	75 35	296°4	2°11	3	8·0 11·7	'330	W. B.
Σ 1639	12 20	63 55	357°2	0°37	2	6·7 7·9	'370	B.
Σ 1643	12 23	62 23	39°1	2°29	1	8·7 9·2	'268	L.
Σ 1647	12 26	79 47	223°9	1°59	1	7·5 7·8	'268	L.
	...	...	224°2	1°45	3	...	'303	W. B.
Ho 54 BC	12 37	79 37	142°7	2°14	1	7·0 10·0	'318	W. B.
BD	...	...	64°6	10°44	1	10·0 13·5	'318	W. B.
Hu 892	12 38	74 59	160°7	0°78	2	9·3 9·3	'284	B.
Hu 893	12 43	77 13	33°8	1°50	2	9·1 9·1	'284	B.
Hu 894	12 49	76 20	144°7	1°08	2	9·1 9·1	'284	B.
Ho 257	13 1	63 17	154°6	1°75	2	8·8 8·9	'297	W. B.
OΣ 261	13 8	57 26	344°8	1°37	1	6·9 7·4	'427	B.
Ho 260	13 19	60 8	321°2	0°70	3	8·3 8·5	'371	W. B.
OΣ 269	13 29	54 38	217°3	0°37	1	6·5 7·0	'427	B.
Hu 645	13 35	68 5	30°4	0°88	1	9·2 9·6	'345	L.
OΣ 278	14 9	45 24	76°4	0°28	1	7·5 7·7	'427	B.
Ho 541	14 16	77 25	91°6	2°12	5	9·3 10·2	'377	W. B.
Σ 1834	14 17	41 5	2°2	0°14	1	7·1 7·2	'427	B.
Aitken 1105	14 23	58 58	185°6	1°01	3	9·1 9·4	'417	W. B.
Ho 542	14 23	68 59	252°7	0°53	2	6·8 8·8	'370	B.
Σ 1865	14 37	75 54	145°9	0°47	3	3·5 3·9	'401	B.
OΣ 285	14 42	47 14	126°1	0°31	1	7·1 7·6	'427	B.
Ho 263	14 44	65 32	175°4	1°07	2	7·0 10·0	'467	W. B.

44 *Micrometer Measures of Double Stars made at* LXVIII. 1,

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	° '	°	"				
Ho 389	14 48	69 20	95°1	1°51	3	7°0 9°3	'372	W. B.
Oζ 287	14 48	44 42	321°6	1°04	1	7°5 7°6	'427	B.
Oζ 288	14 49	73 56	188°7	1°61	2	6°4 7°1	'362	W. B.
Σ 1909	15 1	41 57	244°6	4°60	2	5°2 6°1	'701	L.
Ho 60	15 10	54 47	35°9	0°41	2	7°5 7°6	'467	W. B.
Σ 1926	15 11	51 22	249°9	0°94	1	6°1 8°4	'671	L.
Σ 3091	15 11	94 33	25°5	0°25	1	7°7 7°7	'465	B.
Ho 547	15 12	72 52	297°1	5°55	2	7°9 12°0	'458	W. B.
Σ 1934	15 14	45 56	27°7	7°35	2	8°5 8°5	'701	L.
Σ 1944	15 23	83 36	325°3	1°22	2	7°5 8°1	'418	W. B.
Oζ 296	15 23	45 41	302°4	1°58	2	7°0 8°6	'701	L.
Lewis	15 24	43 32	334°9	3°06	2	9°5 9°8	'701	L.
Σ 1954	15 30	79 9	186°2	3°30	2	3°2 4°1	'458	W. B.
Ho 63	15 32	61 19	304°5	1°53	1	9°0 9°2	'312	B.
	...	...	307°6	1°24	2	...	'437	W. B.
Oζ 298	15 33	49 54	13°0	1°29	1	7°0 7°3	'671	L.
Hu 580	15 38	70 2	69°5	0°20	2	5°0 5°0	'446	B.
Ho 399	15 52	60 12	119°8	2°97	3	7°5 10°0	'448	W. B.
Oζ 303	15 57	76 28	144°9	0°81	3	7°4 7°9	'446	W. B.
Σ 1998	15 59	101 8	358°0	0°35	1	4°9 5°2	'465	B.
Σ 2021	16 9	76 14	336°2	4°08	2	6°7 6°9	'408	W. B.
Σ 2022	16 9	83 6	141°0	2°56	1	6°2 9°8	'460	L.
Oζ 309	16 16	48 7	69°8	0°49	1	7°5 7°8	'427	B.
Σ 2049	16 24	63 50	205°2	1°33	1	6°5 7°5	'460	L.
Σ 3105	16 27	96 50	30°7	0°35	1	7°7 7°7	'465	B.
Σ 2084	16 38	58 14	174°4	1°01	2	3°0 6°5	'446	B.
	...	...	175°4	1°09	2	...	'546	L.
	...	...	178°6	1°21	2	...	'563	W. B.
Σ 2091	16 39	48 38	125°6	1°03	2	7°5 8°0	'701	L.
Σ 2097	16 41	54 5	86°0	2°04	1	8°5 8°7	'441	L.
De 15	16 41	46 21	294°6	0°60	2	8°2 8°6	'701	L.
Σ 2101	16 42	54 12	53°3	4°56	1	6°3 9°0	'441	L.
Σ 2106	16 47	80 26	300°9	0°35	1	6°7 8°4	'482	W. B.
Σ 2107	16 48	61 11	358°8	0°80	1	6°5 8°0	'460	L.
Ho 409	16 52	66 30	19°5	8°19	2	8°1 13°0	'447	W. B.
Σ 2118	16 56	24 50	85°9	0°35	1	6°4 6°9	'427	B.
Σ 2114	16 57	81 25	161°4	1°36	1	6°2 7°4	'482	W. B.
Ho 411	16 59	66 10	262°6	2°09	2	8°3 12°0	'451	L.
Hu 167	17 4	80 3	63°4	0°61	1	9°5 9°8	'460	L.

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	°	°	"				
	...	...	62°9	0°63	1	...	·482	W. B.
Hu 170	17 8	80 8	274°5	1°48	1	8·5 10·8	·460	L.
	...	...	274°0	1°93	1	...	·482	W. B.
Ho 414	17 19	63 50	95°2	0°72	2	8·4 8·8	·555	W. B.
Ho 415	17 19	64 10	329°3	1°30	2	8·0 8·7	·555	W. B.
Σ 2171	17 24	99 56	75°6	1°51	1	7·5 7·6	·580	B.
Σ 2173	17 25	90 59	318°7	0°55	2	6·1 6·3	·589	B.
Hu 179	17 27	78 43	50°3	2°24	2	8·8 8·9	·555	W. B.
Σ 2205	17 40	72 15	303°3	2°11	2	8·3 8·7	·467	W. B.
Σ 2215	17 41	72 16	292°0	0°77	2	5·9 7·9	·467	W. B.
Ho 422	17 48	95 18	20°8	0°58	1	8·2 9·0	·580	B.
Ho 424	17 54	61 44	210°2	1°44	1	8·0 11·0	·460	L.
Σ 2272	18 1	87 28	170°6	2°32	11	4·5 6·0	·595	W. B.
Σ 2283	18 5	83 52	87°0	0°82	1	7·2 7·7	·580	B.
Hu 314	18 5	71 23	142°5	0°38	2	8·3 8·5	·631	W. B.
Hu 315	18 5	66 27	54°7	0°52	1	9·3 9·3	·627	W. B.
Hu 316	18 6	71 45	151°0	1°72	3	9·0 10·1	·620	W. B.
Hu 317	18 7	72 48	20°6	1°88	3	8·5 8·8	·620	W. B.
Hu 196	18 10	81 3	345°3	0°45	1	9·0 9·2	·663	H. F.
Hu 319	18 13	67 13	79°6	0°25	1	9·2 9·6	·627	W. B.
Hu 238	18 18	80 6	344°9	1°46	1	8·6 9·2	·663	H. F.
Ho 83	18 20	62 32	274°5	0°61	2	8·8 8·8	·631	W. B.
Ho 84	18 21	62 37	316°6	3°88	1	9·0 11·0	·731	L.
Σ 2315	18 21	62 40	199°3	0°31	1	7·0 8·0	·731	L.
Hu 583	18 26	76 16	307°5	0°80	1	9·0 9·5	·663	H. F.
Hu 245	18 29	78 17	232°9	2°24	1	8·2 9·2	·663	H. F.
Hu 247	18 33	79 49	42°4	0°51	1	9·0 9·3	·663	H. F.
Hu 248	18 35	80 56	295°0	2°00	1	9·5 9·6	·663	H. F.
Σ 2367 AB	18 37	59 49	254°4	0°40	1	7·0 7·5	·808	L.
$\frac{AB}{2}$ & C	...	...	195°9	14°13	1	7·0 8·2	·808	L.
Ho 437 AB	18 37	58 27	297°6	0°44	1	8·3 8·5	·808	L.
AC	...	...	291°3	22°72	1	8·3 13·0	·808	L.
Dd	...	...	344°9	3°81	1	11·2 11·7	·808	L.
Hu 254	18 46	81 59	168°7	1°03	1	8·9 13·5	·736	H. F.
Hu 256	18 46	81 24	186°4	3°78	2	8·5 12·8	·700	H. F.
Hu 258	18 49	78 30	213°8	2°58	3	8·9 9·4	·629	W. B.
Σ 2422	18 54	64 1	95°7	0°88	2	7·6 7·7	·680	W. B.
Hu 330	18 55	70 31	31°7	0°77	2	9·0 9·3	·700	H. F.

46 *Micrometer Measures of Double Stars made at* LXVIII. I,

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	° '	°	"				
Hu 678	18 56	77 54	363.1	3.04	3	8.0 10.5	.651	W. B.
Ho 92	18 57	57 37	34.0	1.33	1	9.0 9.1	.808	L.
Σ 2437	18 58	70 58	58.1	0.89	2	7.8 8.0	.681	W. B.
Ho 443	19 6	70 44	117.6	3.04	2	9.5 9.5	.700	H. F.
...	...	...	117.9	2.77	1	...	.665	W. B.
β 1204 AB	19 7	87 32	8.7	0.32	2	7.7 8.5	.753	B.
Σ 2476 $\frac{AB}{2}$ & C	...	...	213.7	31.08	2	6.2 11.0	.753	B.
Ho 445	19 9	65 34	244.8	5.18	2	9.3 10.2	.660	W. B.
Ho 446 AB	19 9	65 35	291.1	2.92	1	8.0 13.5	.736	H. F.
Ho 447	19 13	62 14	173.2	2.05	1	9.5 9.5	.665	W. B.
Ho 576 AB	19 16	83 21	181.2	3.59	1	7.0 10.7	.736	H. F.
Ho 105	19 18	73 31	187.5	2.56	3	8.5 10.0	.600	W. B.
Hu 339	19 21	71 32	47.0	0.50	2	8.6 8.6	.659	W. B.
Ho 451	19 23	62 18	297.0	4.14	2	9.3 11.0	.660	W. B.
Σ 2525	19 23	62 51	310.2	0.66	1	7.4 7.6	.682	W. B.
Hu 340	19 24	71 43	120.9	0.85	2	9.0 9.3	.659	W. B.
Σ 2536	19 28	72 25	79.5	1.78	1	8.0 11.0	.736	H. F.
Ho 274	19 31	73 45	74.1	3.75	3	8.3 11.0	.680	W. B.
Ho 110	19 35	71 31	78.9	2.50	2	9.5 9.5	.660	W. B.
Ho 112	19 37	71 35	79.4	2.65	3	9.0 9.0	.600	W. B.
Hu 1195	19 39	76 31	322.5	2.42	1	8.7 14.5	.736	H. F.
Hu 346	19 44	73 7	184.4	0.62	1	8.8 9.5	.736	H. F.
A.G.C. 11 AB	19 45	71 6	145.3	0.18	1	5.7 6.2	.810	B.
Σ 2596	19 50	74 58	320.6	2.12	1	7.2 8.6	.813	W. B.
Ho 583	19 55	68 8	252.6	1.59	1	9.0 10.7	.682	W. B.
Ho 584	19 57	64 3	228.7	2.05	1	6.5 12.0	.723	W. B.
Ho 118	19 59	56 35	26.7	2.73	1	9.1 11.0	.723	W. B.
Ho 591	20 14	62 23	292.1	2.14	1	9.5 10.0	.813	W. B.
Ho 457	20 21	60 55	60.8	2.21	2	8.1 8.1	.601	W. B.
Ho 130	20 23	53 6	106.3	2.51	1	8.5 8.7	.652	L.
Ho 131	20 24	71 32	326.1	4.82	2	7.8 11.2	.641	W. B.
Σ 2690 BC	20 27	79 3	234.5	0.27	1	7.5 7.5	.810	B.
β 151	20 33	75 43	100.3	0.15	2	4.7 6.1	.791	B.
Ho 458	20 35	61 10	279.8	1.98	2	9.0 9.1	.791	W. B.
Ho 144	20 48	70 13	167.7	0.42	1	7.0 7.0	.723	W. B.
Ho 150	21 4	71 31	135.1	2.69	2	9.0 11.5	.693	W. B.
Ho 151	21 6	86 31	192.0	1.78	1	8.5 8.5	.616	W. B.
Hu 767	21 9	74 24	157.5	0.25	2	7.0 7.0	.791	B.



Nov. 1907. *the Royal Observatory, Greenwich, in 1906.* 47

Star's Name.	R.A. 1910.	N.P.D. 1910.	Position Angle.	Dist.	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
	h m	° '	°	"				
O $\Sigma$ 535	21 10	80 24	212°2	0°16	3	4°1 4°1	°773	L.
	...	...	230°8	0°16	2	...	°791	B.
	...	...	227°7	0°24	2	...	°827	W. B.
Ho 284	21 12	74 24	89°0	3°57	3	9°0 9°3	°703	W. B.
Ho 154	21 14	59 48	208°6	3°61	1	7°8 11°0	°915	H. F.
Ho 155	21 16	57 8	35°8	2°37	2	8°0 9°5	°772	W. B.
Ho 157	21 19	58 22	23°1	3°80	2	7°7 7°7	°772	W. B.
Aitken 1219	21 21	60 8	124°3	1°33	1	9°3 9°4	°775	W. B.
Hu 276	21 24	82 40	26°7	0°85	1	9°3 9°7	°843	L.
$\Sigma$ 2799	21 24	79 21	118°0	1°66	1	6°6 6°6	°843	L.
$\Sigma$ 2804	21 29	69 41	155°4	2°97	2	7°3 8°0	°872	L.
Ho 161	21 28	50 20	359°5	2°50	1	7°0 11°0	°915	H. F.
Hu 371	21 31	65 57	169°9	0°22	1	7°0 7°5	°810	B.
Ho 164	21 37	55 20	66°6	3°75	1	8°0 8°1	°915	H. F.
Ho 166	21 40	62 34	73°9	0°31	3	7°5 7°5	°760	W. B.
	...	...	71°1	0°31	1	...	°862	L.
$\Sigma$ 2822	21 40	61 39	124°1	2°22	2	4°0 5°0	°616	W. B.
$\beta$ 989	21 41	64 46	104°5	0°27	5	3°9 4°4	°714	W. B.
	...	...	107°8	0°19	6	...	°821	L.
	...	...	108°1	0°49	1	...	°736	H. F.
	...	...	107°9	0°27	2	...	°791	B.
Ho 608	21 43	63 7	119°5	0°64	1	8°2 9°7	°862	L.
Ho 466	21 44	55 32	144°7	1°61	1	8°7 9°2	°915	H. F.
Ho 467	21 46	68 10	186°2	1°45	3	8°0 10°2	°689	W. B.
Ho 173	21 51	71 44	82°0	1°17	1	8°0 10°0	°843	L.
Ho 609	21 51	60 4	176°7	3°20	2	9°5 9°8	°794	W. B.
Ho 610	21 58	63 35	231°0	0°66	1	9°0 9°2	°862	L.
Hu 978	22 8	76 32	228°6	0°68	1	8°5 9°0	°819	W. B.
Ho 179	22 9	60 14	251°0	0°65	1	8°0 9°0	°819	W. B.
Ho 182	22 19	72 54	128°3	1°43	4	8°5 8°5	°809	W. B.
Ho 183	22 21	67 53	216°3	2°51	1	8°2 11°6	°843	L.
Ho 475 AB	22 29	64 3	317°6	0°89	2	8°0 8°2	°827	W. B.
Ho 294	22 33	63 2	62°9	2°10	1	8°0 10°0	°819	W. B.
Ho 296	22 36	75 56	68°5	0°32	2	5°5 5°5	°846	B.
Ho 190	22 45	62 28	153°7	2°03	3	9°2 9°2	°822	W. B.
Ho 482	22 47	64 5	73°0	0°14	1	6°8 6°8	°882	B.
Ho 484	22 54	69 44	108°5	3°19	1	8°0 12°0	°805	L.
Ho 192	22 55	60 24	29°7	1°82	2	8°5 8°5	°874	W. B.
Hu 398	22 58	71 53	323°8	0°37	1	8°7 9°0	°805	L.

Star's Name.	R.A. 1910. h m	N.P.D. 1910. ° '	Position Angle. °	Dist. "	Number of Nights.	Magni- tudes.	Epoch 1906.	Obsr.
Ho 299	23 10	66 15	77°0	1'48	1	8'0 10'2	'835	W. B.
Ho 198	23 13	73 38	33'7	2'26	4	8'0 9'0	'856	W. B.
Ho 300	23 19	78 11	304'1	0'15	1	5'0 5'0	'882	B.
Ho 301	23 20	76 1	359'7	1'09	1	7'2 11'0	'835	W. B.
Ho 489	23 22	62 47	240'0	0'42	1	7'8 7'8	'835	W. B.
Ho 201	23 33	55 51	340'9	4'11	1	8'0 9'3	'915	H. F.
Ho 303	23 36	70 8	187'4	1'15	1	8'0 11'0	'862	L.
Hu 300	23 41	84 1	120'3	1'29	1	8'7 9'0	'882	B.
Ho 206	23 54	56 14	184'4	2'11	1	8'0 10'0	'928	W. B.

*Royal Observatory, Greenwich:*  
1907 November 6.

*Proper motions of 1186 Carrington Stars from a direct comparison between Carrington's Catalogue for 1855 and the Greenwich Second Nine-year Catalogue for 1900.*

*(Communicated by the Astronomer Royal.)*

The proper motions of the following stars, which have been observed with the transit circle at Greenwich during the years 1897-1905, for the purpose of determining their places for use as reference stars on the astrographic plates, have been derived from a direct comparison with Carrington's Circumpolar Catalogue for 1855. For this purpose the places in Carrington's Catalogue have been reduced to the epoch 1900 by the ordinary trigonometrical formula with the Struve-Peters' constants, and in addition the systematic corrections given on p. 321 of *Monthly Notices*, lxvi. 5, have been applied.

Full details will be published in the Introduction to the Greenwich Nine-year Catalogue, 1900. The proper motions for both R.A. and N.P.D. are given in arc, and arranged in Zones of N.P.D.; the magnitudes are taken from the Harvard Photometry (marked \*) and the Bonn Durchmusterung.

#### ZONE 0°.

Carr. No.	Mag.	Approx.		Proper Motions.				Carr. No.	Mag.	Approx.		Proper Motions.			
		R.A.		Unit "oor.		R.A.				Unit "oor.					
		1900.		R.A.	N.P.D.	1900.				R.A.	N.P.D.				
		h	m	+	-	+	-			h	m	+	-	+	-
201	9'2	1	45	...	0	7	...	h	8'9	11	35	...	25	...	13
303	9'0	2	32	...	3	...	22	i	8'8	12	42	...	20	2	...
b	8'8	3	19	...	3	...	40	l	9'0	13	51	3	...	7	...
538	9'2	4	28	...	18	...	4	t	9'3	15	29	...	5	...	31
d	9'1	6	39	...	27	...	4	r	9'3	15	55	10	...	...	9
e	9'1	8	30	...	17	...	22	n	8'7	16	9	22	...	7	...
g	9'0	11	0	...	83	...	31	3601	9'0	23	11	2	...	...	9